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ABSTRACT

A frequency shifting circuit suitable for a digital demodulator in a multi-carrier communications system is disclosed. After converting analog signal vectors to the input signal vectors according to a predetermined sampling clock, control data is generated from a frequency difference between sub carrier bands and center carrier band. A signal vector rotator is provided corresponding to each of the sub-carrier bands and rotates the input signal vectors on the I Q plane by an angle determined depending on corresponding control data to shift the sub-carrier bands of the input signal vectors to the center carrier band. A band-pass filter passes an output signal vector of the center carrier band.

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